What is claimed is:

1. A polyamide film production method, comprising the steps of:

extruding a molten polyamide resin from a die into a sheet form on a rotary cooling roll having a roughened surface;

pressing the sheet against the surface of the cooling roll with the intervention of an air layer between the cooling roll and the sheet by blowing air onto the sheet from an air knife apparatus for cooling the sheet, the air layer having a widthwise thickness distribution such that an average air layer thickness Te in lateral edge regions of the sheet is greater than an average air layer thickness Tc in a middle region of the sheet; and

biaxially stretching the sheet.

2. A polyamide film production method as set forth in claim 1, wherein the air layer present between the rotary cooling roll and the sheet has an average thickness T (μm) of $10 \leqq T \leqq 100$ and a maximum thickness Tmax (μm) of $Tmax < 150$, and a multiplicity of points of contact are present between the sheet and the rotary cooling roll.

3. A polyamide film production method as set forth in claim 1 or 2, wherein a ratio (Te/Tc) of the average air layer thickness Te in the lateral edge regions of the sheet to the average air layer thickness Tc in the middle region of the sheet is in the range of 1.1 to 2.5.

4. A polyamide film production method as set forth in claim 1 or 2, wherein the rotary cooling roll has an average surface roughness along a center line SRa (μm) of $0.2 \leqq SRa \leqq 1.0$ and a maximum surface roughness SRmax (μm) of $1 \leqq SRmax \leqq 4$.

5. A polyamide film production method as set forth in claim 3, wherein the rotary cooling roll has an average surface roughness SRa (μm) of $0.2 \leqq SRa \leqq 1.0$ and a maximum surface roughness SRmax (μm) of $1 \leqq SRmax \leqq 4$.

6. A polyamide film production method as set forth in claim 1 or 2, wherein a tenter driven by a linear motor is employed for biaxial stretching.

7. A polyamide film production method as set forth in claim 3, wherein a tenter driven by a linear motor is employed for biaxial stretching.

8. A polyamide film production method as set forth in claim 4, wherein a tenter driven by a linear motor is employed for biaxial stretching.